

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PATRICK L. SCHEIB and PEGGY M. GARRETT

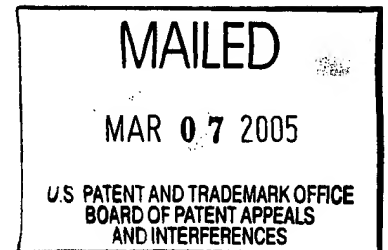
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Appeal No. 2005-0562  
Application 09/824,276

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ON BRIEF

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Before FRANKFORT, McQUADE, and NASE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 11, 13 through 16 and 19 through 27. Claims 1 through 10 have been withdrawn from further consideration by the examiner as being directed to a non-elected invention. Claim 28, the only other claim remaining in the application, stands

objected to, but is indicated to be allowable if rewritten in independent form including all of the limitations of the independent claim and any intervening claims<sup>1</sup>. Claims 12, 17 and 18 have been canceled.

Appellants' invention relates to a manual transmission assembly including a switch (64, 70) associated with a reverse biasing assembly (40) of the transmission wherein the switch is designed to cooperate with the movable housing (60) of a detent mechanism (44) operatively associated with an interlock (42) of the transmission and to indicate when a shift lever (12) of the manually controlled transmission is positioned in or is entering the first gear/reverse gate. Independent claim 11 is representative of the subject matter on appeal and a copy of that claim can be found in the Appendix to appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

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<sup>1</sup>See the paper mailed November 24, 2004 wherein the examiner clarifies the status of claim 28, which claim was not mentioned in the final rejection and was erroneously included in the rejection set forth on page 2 of the examiner's answer.

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|----------------------------|-----------|--------------|
| Jones                      | 4,633,725 | Jan. 6, 1987 |
| Reynolds et al. (Reynolds) | 4,974,468 | Dec. 4, 1990 |

Claims 11, 13 through 16 and 19 through 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Reynolds in view of Jones.

Rather than reiterate the examiner's full statement of the above-noted rejection and the conflicting viewpoints advanced by the examiner and appellants regarding the rejection, we make reference to the final rejection (mailed May 21, 2003) and examiner's answer (mailed January 13, 2004) for the reasoning in support of the rejection, and to appellants' brief (filed October 24, 2003) and reply brief (filed March 15, 2004) for the arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims<sup>2</sup>,

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<sup>2</sup>Notwithstanding the examiner's indication in the answer (page 2) that the copy of the appealed claims contained in the Appendix to the brief is correct, we note that a copy of claim 14

to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have made the determination which follows.

In rejecting claims 11, 13 through 16 and 19 through 27 under 35 U.S.C. § 103(a) on the basis of the collective teachings of Reynolds and Jones, it is the examiner's position (final rejection, pages 2-3) that Reynolds discloses

a manual transmission assembly comprising: a shift lever (inherent) to operatively rotate an interlock; a reverse biasing assembly including said interlock rotatable between a first position and a second position, a detent mechanism which substantially contacts said interlock, and a detent switch coacting with said detent mechanism to indicate when said interlock is in said first position (figs. 6-8); a shift rail 100 rotatable and axially moveable by said shift lever, said shift rail rotating with said interlock; a plurality of shift forks operatively engageable by said shift rail; a plurality of gears operatively connected to

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is missing. According to the Image File Wrapper (IFW), claim 14 depends from claim 13. As a further issue, we note that we find no clear antecedent basis for the recitation in several of the claims on appeal of "said elevated portion of said exterior surface of said detent mechanism." While independent claim 11 sets forth a detent mechanism including "a housing having an external surface with a recessed portion," we find no indication in this or any other claim concerning the remainder of the exterior surface of the detent mechanism. Appellants and the examiner should address and clarify this issue during any further prosecution of the application.

said plurality of shift forks; and a switch 144 to provide an indication to a splitter mechanism of when said interlock is in a predetermined position; when said interlock (figs. 6-8) is rotatable between a first position and a second position, a detent mechanism substantially contacting said interlock, and a detent switch coacting with said detent mechanism to indicate when said interlock is in said first position, to provide the indication to a splitter mechanism (connected to switch 144); said interlock further includes a contoured perimeter having an arcuate surface and a raised ramp and said detent mechanism further includes a contact surface which substantially contacts said contoured perimeter of said interlock (fig. 6-8).

In the examiner's view, the only thing lacking in Reynolds is any teaching or disclosure of a detent having an external surface with a recessed portion wherein a detent switch coacts with said external surface of the detent mechanism. To address this deficiency the examiner turns to Jones, urging that Jones discloses a manual transmission comprising a detent mechanism (Fig. 2), wherein the detent mechanism has a detent with an external arcuate recessed portion (122) and wherein a detent switch (132) coact with the external surface of the detent mechanism by way of a pin (138).

From the above teachings in Reynolds and Jones, the examiner has concluded that it would have been obvious to one of ordinary skill in the art at the time of appellants' invention "to have

utilized the detent mechanism of Jones... within Reynolds... as an addition to the non-descript internal structure of the detent mechanism of Reynolds... so as to provide vital sensory information for the transmission" (final rejection, pages 3-4).

In responding to appellants' arguments in the brief concerning lack of motivation to combine the applied references, the examiner has amplified the position in the final rejection by now indicating on page 3 of the answer that

it would have been obvious to have modified Reynolds, specifically the internal structure of the shift indicator mechanism acted upon by the plunger 144, with only the mechanical attributes of the shift indicator system of Jones, specifically the plunger 110 having an arcuate surface 122, and shift sensor mechanism 132, 138, so as to create a robust, two-position sensory system that relays shift position information to a central ECU, thereby providing proper and safe shifting, as suggested by Jones. Note that Reynolds only shows a generic shift indicating mechanism acted upon by a plunger and Jones teaches to one of ordinary skill in the art the providing of a plunger with an arcuate surface to engage a shift actuating shank to indicate a shift position. As such there is a clear motivation to modify Reynolds in view of Jones.

Having reviewed and evaluated the applied Reynolds and Jones patents, we find that we are in agreement with appellants' that the examiner's position regarding the purported obviousness of claims 11, 13 through 16 and 19 through 27 on appeal represents a classic case of the examiner using impermissible hindsight derived from appellants' own disclosure in an attempt to reconstruct appellants' claimed subject matter from disparate teachings and broad concepts purported to be present in the applied prior art references. In our view, there is no motivation or suggestion in the patents to Reynolds and Jones which would have reasonably led one of ordinary skill in the art to modify the manual transmission of Reynolds in the manner urged by the examiner so as to result in appellants' claimed subject matter.

Like appellants (reply brief, page 2), we first note that the plunger member (144) of Reynolds identified by the examiner as being "a switch 144 to provide an indication to a splitter mechanism of when said interlock is in a predetermined position" (final rejection, page 3), is described in the Reynolds patent (col. 7, lines 13-38) as being a spring biased plunger member provided to give the operator of the transmission an indication

of having selected the reverse and low speed rail position (i.e., via tactile feedback) and to resiliently urge the transmission out of this position upon release of the shift lever by the operator. Thus, it appears that plunger member (144) of Reynolds is not a "switch" and clearly does not "provide an indication to a splitter mechanism of when said interlock is in a predetermined position," as urged by the examiner.

As for the examiner's assertions on page 3 of the answer, we share appellants' views in the rely brief that there is absolutely no reason to incorporate the groove or recess (122) and sensing member (138) of Jones into either the bushing (114) or the plunger (144) of Reynolds' transmission. At best, it appears from a collective evaluation of the applied patents that it would have been obvious to one of ordinary skill in the art at the time of appellants' invention to incorporate an auxiliary shift rail like that seen at (110) of Jones into the transmission of Reynolds at a position on the shift lever above bushing (114), shift rails (96, 98) and control shaft (100), as generally shown in Figures 1 and 2 of Jones wherein the auxiliary shift rail (110) cooperating with the sensor (132) is located on the shift lever (102) at a position above shift rails (46, 48 and 50).



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However, such an arrangement would clearly not result in a transmission assembly like that defined in the claims before us on appeal.

Since we have determined that the teachings and suggestions which would have been fairly derived from the Reynolds and Jones patents would not have made the subject matter as a whole of claims 11, 13 through 16 and 19 through 27 on appeal obvious to one of ordinary skill in the art at the time of appellants' invention, we must refuse to sustain the examiner's rejection of those claims under 35 U.S.C. § 103(a).


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In light of the foregoing, the decision of the examiner to reject claims 11, 13 through 16 and 19 through 27 under 35 U.S.C. § 103(a) is reversed.

REVERSED

  
CHARLES E. FRANKFORT )  
Administrative Patent Judge )

  
JOHN P. McQUADE )  
Administrative Patent Judge )

  
JEFFREY V. NASE )  
Administrative Patent Judge )

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Carlson, Gaskey & Olds, P.C.  
400 West Maple Road  
Suite 350  
Birmingham, MI 48009